

SQL - FOREIGN KEY

<http://www.tutorialspoint.com/sql/sql-foreign-key.htm>

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A foreign key is a key used to link two tables together. This is sometimes called a referencing key.

Foreign Key is a column or a combination of columns whose values match a Primary Key in a different table.

The relationship between 2 tables matches the Primary Key in one of the tables with a Foreign Key in the second table.

If a table has a primary key defined on any fields, then you can not have two records having the same value of that fields.

Example:

Consider the structure of the two tables as follows:

CUSTOMERS table:

```
CREATE TABLE CUSTOMERS(  
  ID      INT           NOT NULL,  
  NAME    VARCHAR (20)  NOT NULL,  
  AGE     INT           NOT NULL,  
  ADDRESS CHAR (25) ,  
  SALARY  DECIMAL (18, 2),  
  PRIMARY KEY (ID)  
);
```

ORDERS table:

```
CREATE TABLE ORDERS (  
  ID          INT           NOT NULL,  
  DATE        DATETIME,  
  CUSTOMER_ID INT references CUSTOMERS(ID),  
  AMOUNT      double,  
  PRIMARY KEY (ID)  
);
```

If ORDERS table has already been created, and the foreign key has not yet been set, use the syntax for specifying a foreign key by altering a table.

```
ALTER TABLE ORDERS  
  ADD FOREIGN KEY (Customer_ID) REFERENCES CUSTOMERS (ID);
```

DROP a FOREIGN KEY Constraint:

To drop a FOREIGN KEY constraint, use the following SQL:

```
ALTER TABLE ORDERS  
  DROP FOREIGN KEY;
```

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